

INTERNATIONAL SEARCH REPORT

Inte Application No
PCT/GB2004/002506

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 A61F9/00 A45C11/00 B08B11/02

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)
IPC 7 A61F A45C B08B

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EPO-Internal, WPI Data, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 2002/163212 A1 (PY DANIEL) 7 November 2002 (2002-11-07) columns 41-64; claims; figures	1-16,18
Y		17
A	US 4 093 291 A (SCHURGIN HERBERT L) 6 June 1978 (1978-06-06) column 2, line 42 - column 3, line 2; claims; figures	1-16,18
Y		17
A	US 4 201 408 A (TRESSEL WILLARD) 6 May 1980 (1980-05-06) cited in the application claims; figures	1-18
A	US 3 600 028 A (HENNING WILHELM) 17 August 1971 (1971-08-17) claims; figures	1-18
	-/-	

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

* Special categories of cited documents:

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

- *T* later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention
- *X* document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art
- *Z* document member of the same patent family

Date of the actual completion of the international search

10 December 2004

Date of mailing of the international search report

23/12/2004

Name and mailing address of the ISA

European Patent Office, P.B. 5818 Patentlaan 2
NL - 2280 HV Rijswijk
Tel. (+31-70) 340-2040, Tx. 31 851 epo nl,
Fax (+31-70) 340-3010

Authorized officer

Kuehne, H-C

INTERNATIONAL SEARCH REPORT

Inte Application No
PCT/GB2004/002506

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT		
Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	US 4 026 591 A (CLEAVELAND JOHN A) 31 May 1977 (1977-05-31) claims; figures	1-18
A	US 3 091 328 A (LEONARDOS PRISCILLA A) 28 May 1963 (1963-05-28) claims; figures	1-18
A	US 5 236 236 A (GIRIMONT JOHN V) 17 August 1993 (1993-08-17) claims; figures	1-18
A	US 4 427 226 A (SHARTZER EWART E) 24 January 1984 (1984-01-24) cited in the application the whole document	1-18
A	EP 0 778 656 A (SMC CORP) 11 June 1997 (1997-06-11) cited in the application claims; figures	1

INTERNATIONAL SEARCH REPORT

Inte Application No
PCT/GB2004/002506

Patent document cited in search report	Publication date	Patent family member(s)	Publication date
US 2002163212 A1	07-11-2002	US 2004212202 A1 BR 0209372 A CA 2445977 A1 EP 1393100 A2 WO 02088780 A2	28-10-2004 29-06-2004 07-11-2002 03-03-2004 07-11-2002
US 4093291 A	06-06-1978	NONE	
US 4201408 A	06-05-1980	NONE	
US 3600028 A	17-08-1971	DE 1912421 B	29-01-1970
US 4026591 A	31-05-1977	NONE	
US 3091328 A	28-05-1963	NONE	
US 5236236 A	17-08-1993	US 5415275 A	16-05-1995
US 4427226 A	24-01-1984	NONE	
EP 0778656 A	11-06-1997	US 5726508 A CA 2183364 A1 DE 69606838 D1 DE 69606838 T2 EP 0778656 A1 JP 3377709 B2 JP 9192944 A	10-03-1998 07-06-1997 06-04-2000 17-08-2000 11-06-1997 17-02-2003 29-07-1997